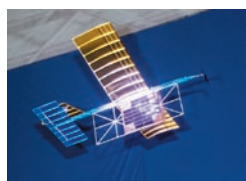


# NASA Explorer Schools News

*A monthly newsletter  
for the teachers of  
tomorrow's explorers*

*December marks the 100th anniversary of the Wright Brothers' success in achieving momentary flight of 120 feet on the sands of Kitty Hawk, NC. In honor of the Centennial of Flight, we are highlighting NASA's Aerospace Technology Enterprise in the inaugural issue of Explorer Schools News.*

## Featured Mission



### Team flies first laser-powered aircraft.

Researchers from NASA and the University of Alabama in Huntsville have developed a model aircraft that is powered by an invisible, ground-based laser. The radio-controlled plane has a five-foot wingspan, weighs 11 ounces and is constructed from balsa wood and carbon fiber tubing covered with Mylar film. The laser tracks the aircraft in flight, directing its energy beam at light collecting cells that convert the light to electricity to power the plane. Laser power beaming is a promising technology for future development of aircraft design and is part of NASA's mission to develop of revolutionary aerospace technologies.

[www.dfrc.nasa.gov/Newsroom/NewsReleases/2003/03-54.html](http://www.dfrc.nasa.gov/Newsroom/NewsReleases/2003/03-54.html).

## Teachers' Corner

Have you been doing something cool with your students? Each month we will identify an activity recommended by a teacher relating to that issue's theme. Please send your recommendations to [Marci.Delaney@gsfc.nasa.gov](mailto:Marci.Delaney@gsfc.nasa.gov) by December 1. The December issue will focus on Mars.



**Wind Tunnel Simulator.** In 1901, the Wright Brothers constructed a wind tunnel to test their designs for a practical airplane. That testing technique is exactly the same method that is used today. NASA engineers have developed a computer simulation that replicates the Wright Brothers' 1901 wind tunnel. Students can use

this simulation to learn lessons in math, physics and history. The program can be modified according to the age of your students. The activity can be run on-line or be downloaded on a PC or MAC.

Also available from NASA Glenn Research Center is an activity book built around the discovery process used by the Wright brothers that includes numerous math problems and other exercises at [wright.nasa.gov/activities.htm](http://wright.nasa.gov/activities.htm)

## Bytes and Bits

**"Born of Dreams - Inspired by Freedom"** a two-hour TV special celebrating aviation will be aired on Dec. 13 at 8 pm. [www.centennialofflight.gov/](http://www.centennialofflight.gov/)

## NASA Explorers are people like you

**Name:** Nancy Holloway

**Education:** 2 A.S. degrees, B.S. in process

**Job title:** Electronics Engineering (EE) Technician

Nancy develops unique materials for electronics applications at NASA Langley Research Center. She is also very active in educational outreach programs. Nancy started her career in the Model Shop as a secretary when she was 17, a facility that built high tech models for wind tunnel testing. Since becoming an EE technician, she has earned patents and patent disclosures for developing new products. She hopes to inspire and inform today's students of great opportunities available in technology careers and the importance of early preparation for those careers. For the full text version of her inspiring story, visit [learners.gsfc.nasa.gov/ExplorerSchoolsNews](http://learners.gsfc.nasa.gov/ExplorerSchoolsNews).

## NES Spotlight

**Choctaw Central Middle School**

**Students:** 197

**Teaching staff:** 29

Choctaw Central Middle School is located on the Pearl River Choctaw Indian Reservation near Philadelphia, MS. The Choctaw Tribal Government took over school operations from the Bureau of Indian Affairs in 1991. The school holds a science and engineering fair each year, in which 170 students have participated over the last 2 years. Ten students advanced to the National Native American Science Fair where 5 placed; and 3 students advanced to the Mississippi Science and Engineering State Fair, in which one student placed! Students also participated in the FIRST Lego League competition for 2 years.

## Teacher Tech Talk Tuesday

**Computer problems?** *Where do I plug this cable in? How do I save these images? How do I turn off that darn Paper Clip?* IT expert, Shane Keating, and a team of guest "geeks" will help in a regularly scheduled webcast on the 1st and 3rd Tuesday of each month.

Send your questions now to [Shane.Keating@gsfc.nasa.gov](mailto:Shane.Keating@gsfc.nasa.gov). Each webcast will feature the Explorer School that sends the best questions. Shane will also provide a few tips of his own. So tune in! <http://learners.gsfc.nasa.gov/T4>



**December schedule:** December 2nd and 16th.

Each Teacher Tech Talk Tuesday (T4) will webcast live twice, at 7:30 AM PST **and** 3:30 PM EST.



National Aeronautics and  
Space Administration

<http://learners.gsfc.nasa.gov/ExplorerSchoolsNews>  
Please send comments or questions to [Daniel.Laughlin@gsfc.nasa.gov](mailto:Daniel.Laughlin@gsfc.nasa.gov)